

ABSTRACT OF THE DISCLOSURE

A manufacturing method of carbon nanotube transistors is disclosed. The steps include: forming an insulating layer on a substrate; forming a first oxide layer on the insulating layer using a solution with cobalt ion catalyst by spin-on-glass (SOG); forming a
5 second oxide layer on the first oxide layer using a solution without the catalyst; forming a blind hole on the second oxide layer using photolithographic and etching processes, the blind hole exposing the first oxide layer, the sidewall of the second oxide layer, and the insulating layer; forming a single wall carbon nanotube (SWNT) connecting the first oxide layer separated by the blind hole and parallel to the substrate; and forming a source and a
10 drain connecting to both ends of the SWNT, respectively.